

MULTIMEDIA



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STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2015 / 2016

PCA0084 – COMPUTER SYSTEM AND WEB DESIGN
(Foundation in Management)

31 MAY 2016
2.30 p.m. - 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **FOUR** pages excluding the cover page.
2. Attempt **FIVE** out of **SIX** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Write your answers in the Answer Booklet.

QUESTION 1 [10 Marks]

- a. The processor or central processing unit (CPU) interprets and carries out the basic instructions that operate a computer. The processor significantly impacts overall computing power and manages most of a computer's operations.
- i. For every instruction, a processor repeats a set of four basic operations which comprise a machine cycle. Illustrate the steps in a machine cycle.
(6 marks)
 - ii. Two ways for computers to increase their processing time are pipelining and parallel processing. Briefly explain them.
(2 marks)
- b. A QR code (quick response code) is known as a 2-D bar code. Why? What types of information are stored in a QR code?
(2 marks)

QUESTION 2 [10 Marks]

- a. The quality of LCD (Liquid Crystal Display) monitor or LCD screen depends primarily on several main factors. State **THREE (3)** of the factors and briefly explain them.
(3 marks)
- b. A printer is an output device that produces text and graphics on a physical medium, such as paper. How is a nonimpact printer different from an impact printer?
(2 marks)
- c. Give **TWO (2)** reasons why hard disk is important. Briefly explain the process of reading and writing that are performed by the hard disk's read/write head.
(3 marks)
- d. If you are going to move around a lot and you need your data to always be ready by your side, what are the **TWO (2)** suitable storage media for you? Briefly explain your answer.
(2 marks)

QUESTION 3 [10 Marks]

- a. Give **SIX (6)** types of application software used in communications.
(3 marks)
- b. Linux is a popular multitasking UNIX-based and device-independent operating system. It is not proprietary software but open source software. Briefly explain the terms that are bold and underlined.
(4 marks)

Continued...

c. Answer the following questions on screen saver.

i. What is the main purpose of a screen saver?

(1 mark)

ii. If you own an LCD monitor, will you need a screen saver? Why?

(1.5 marks)

iii. Do screen savers save energy?

(0.5 marks)

QUESTION 4 [10 Marks]

Consider the following simple home network diagram shown in **Diagram 1**. Questions a, b and c refer to this diagram.

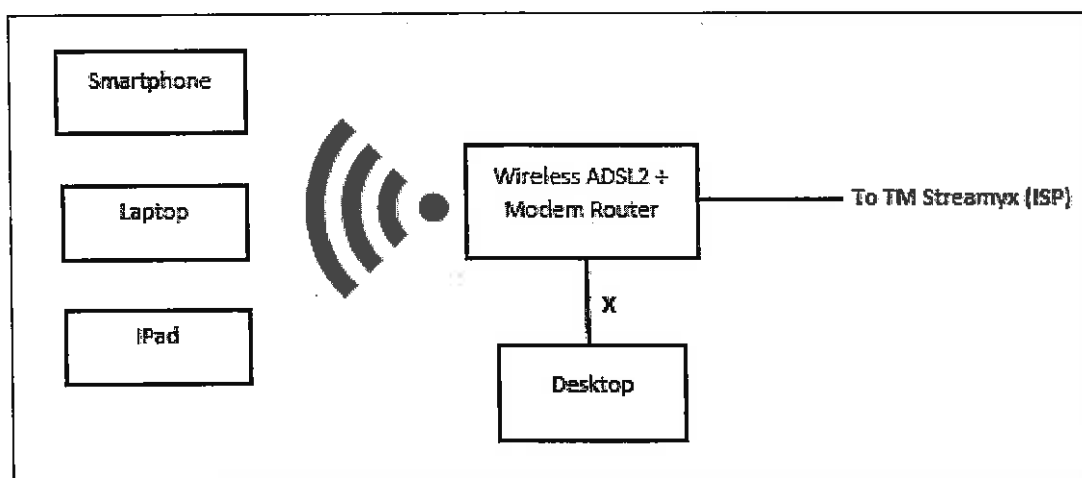


Diagram 1

a. The desktop is connected to the router using a wire (marked 'x'). In a typical home network:

i. What type of wire would it be?

(1 mark)

ii. Briefly describe this type of wire.

(2 marks)

iii. What is the name of the connector used for this wire?

(1 mark)

b. The smartphone, laptop and iPad are communicating with the network by using a technology that does not require a physical connection.

i. What type of waves does this technology use?

(1 mark)

Continued...

- ii. What is the type of LAN technology or protocol used? Give the full name of the technology used and its abbreviation.
(2 marks)
- iii. Give **TWO (2)** series of network standards developed for this technology.
(1 mark)
- c. What is an ISP?
(2 marks)

QUESTION 5 [10 Marks]

- a. Alan is the new database administrator for Sierra Golf Club. Sierra Golf Club uses a database to store information about its clients, game schedules and statistics. The club's website uses information stored in the database to display game standings and events.
- i. Briefly describe **THREE (3)** roles for Alan as a database administrator.
(3 marks)
- ii. Give **THREE (3)** disadvantages of databases?
(3 marks)
- b. One of the security measures that can be taken by Sierra Golf Club to protect its database is to create different levels of access privileges.
- i. What is an access privilege?
(1 mark)
- ii. Briefly explain the **TWO (2)** levels of access privileges.
(3 marks)

QUESTION 6 [10 Marks]

a.

Hacking	Cyber Stalking
Identity Theft	Cyber Terrorist
Cyberbullying	Phishing

The above are six different types of cybercrimes. These crimes are committed over the Internet. Discuss any **FOUR (4)** of the above crimes.
(8 marks)

Continued...

- b. The use of biometric technology is directly associated with privacy concerns, such that it has negative perceptions which surround its usage. Should a sales person be allowed to collect biometric information from a customer? Discuss the privacy issues surrounding that.

(2 marks)

End of Paper